Spring 5-20-2020

2020 Bogside May 20: PPE, WPS and Diazinon

Martha Sylvia

UMass Cranberry Station

Research & Extension

Cranberry Disease Management Guidelines

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May 20th, 2020

Upright Dieback

Phomopsis vaccinii

Fusicoccum putrefaciens

Synchronoblastia crypta

Upright Dieback Management

- **Avoid heat stress. Prolonged periods of drought worsens the damage caused by this disease.**
- **Coppers and Chlorothalonil fungicides are registered.**

  eg: Champ DP, Champ Flowable, Champ WG

  Bravo Ultrex, Bravo Weather Stik, Equus DF
- **Timing of applications:**

  Early applications at bud break and/or bud elongation are known to provide excellent control.

DISEASE - UPRIGHT DIEBACK

TIMING - April 25 through May 15

PESTICIDE/FORMULATION	RATE (amt/A)	COMMENTS/RESTRICTIONS
Champ DP Dry Prill	5.3 lb	Must be applied pre-bloom. 48-hour restricted entry interval.
Champ Formula 2 Flowable	5.33 pt	
Champ WG	4.2 lb	
CHLOROTHALONIL FORMULATIONS		
Bravo Ultrex, Echo DF	3.8 – 6 lb	One pre-bloom application should be applied after the terminal bud has broken dormancy (begun to swell or has begun new growth). Exact timing will depend on whether the variety is early or late-season. 12-hour restricted entry interval.
Bravo Weather Stik	4 – 6.5 pt	
Chlorothalonil 720 SC	4 – 6.5 pt	
Chloronil 720, Equus 720 SST	4 – 6.5 pt	
Echo 720	4 - 7 pt	
Echo 90DF	3.25 - 5.75 lb	
Equus 500 ZN, Initiate ZN	5.75 – 9.25 pt	

For all above chlorothalonil formulations: Hold water for 3 days after application. When chlorothalonil formulations are to be used in a bed subject to Zone II regulations, growers must follow the required process to determine if these products may be used. See Zone II section. The maximum allowable number of chlorothalonil applications is 3. **If a chlorothalonil application is used for upright dieback control, only 2 fruit rot applications are allowed.**

Cranberry Bud Stages

Cabbage head

Early Black

Howes

PC: Martha Sylvia and Peter Jeranyama

Cranberry Bud Stages

Bud Elongation: Between cabbage head and roughneck

PC: Martha Sylvia and Peter Jeranyama

Examples of Bud Elongation

PC: OceanSpray

Cranberry Bud Stages

Roughneck Stage

PC: Peter Jeranyama

Upright Dieback

- Spores of the primary causal agent Phomopsis begin to be produced from overwintering cranberry tissue in April and May, the emerging buds are particularly susceptible to the infection.

Upright Dieback

- There are three phases during the season when the symptoms appear:
  - shortly after the withdrawal of winter flood
  - June and early July
  - Late August and September

Upright Dieback

- Fungicides targeted for fruit rot control also provide a degree of protection against this disease during early and mid-season infection periods.

Fruit Rot

Botryosphaeria vaccinii

Botrytis spp.

Allantophomopsis cystisporea

Allantophomopsis lycopodina

Coleophoma empetri

Colletotrichum acutatum

Colletotrichum gloeosporioides

Fusicoccum putrefaciens

Phomopsis vaccinii

Phyllosticta vaccinii

Physalospora vaccinii

Field Rot

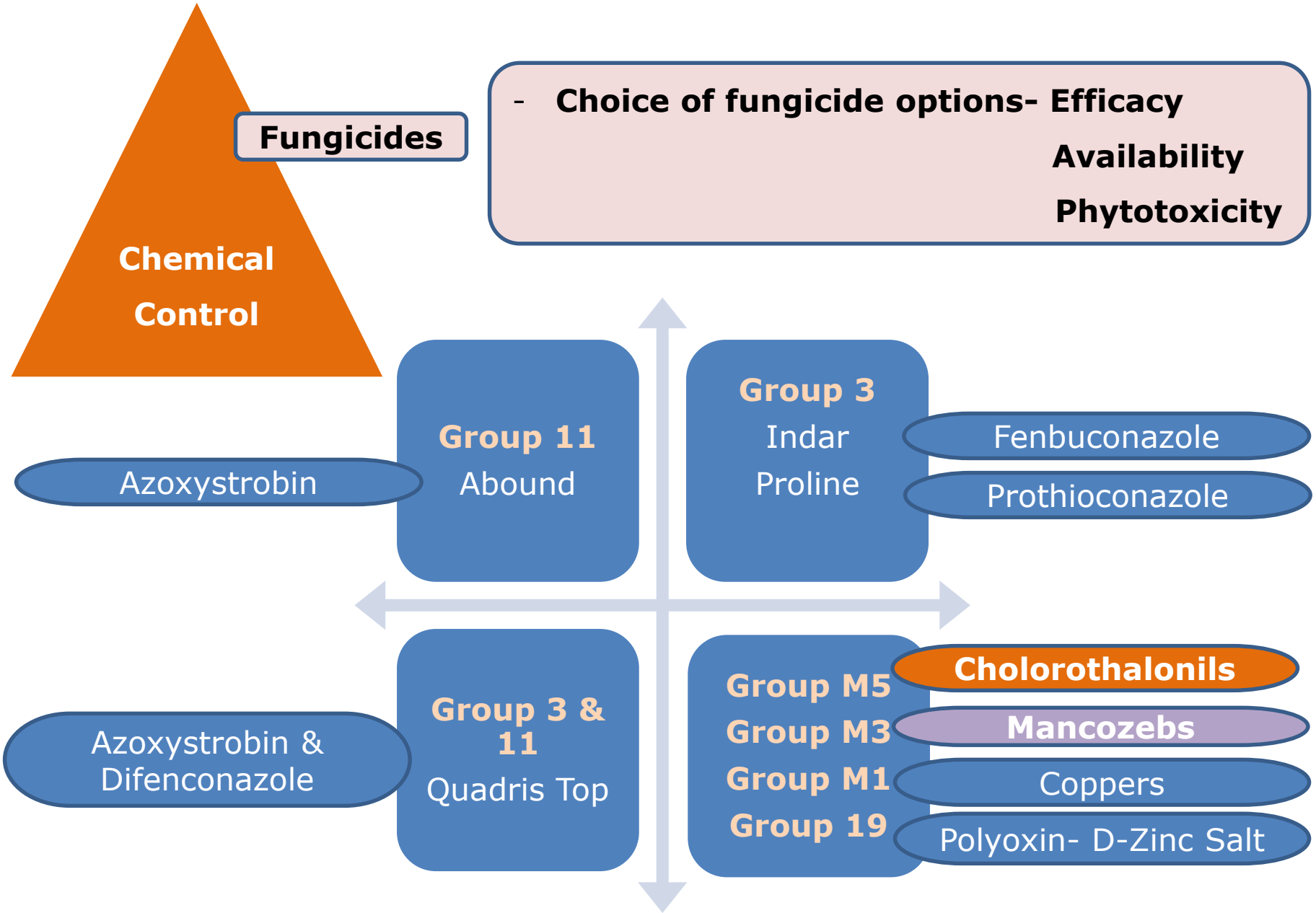
Keeping Quality Forecast

- Issued since 1949
- Preliminary KQF – early April; timed for the decision of whether to hold late water
- Final KQF – early June; timed for the determination of fungicide applications and rates.

Preliminary Forecast for 2020 Keeping Quality

The preliminary forecast for 2020 is for

FAIR keeping quality


Chemical Control
Fungicides
- Choice of fungicide options- Efficacy
Availability
Phytotoxicity
Group 11
Abound
Azoxystrobin
Group 3
Indar
Proline
Fenbuconazole
Prothioconazole
Group 3 & 11
Quadris Top
Azoxystrobin & Difenconazole
Group M5
Group M3
Group M1
Group 19
Cholorothalonils
Mancozebs
Coppers
Polyoxin- D-Zinc Salt

Mancozeb Status

- The European Union notified the WTO of its proposal not to renew the approval for use of **mancozeb** (Manzate) in the European Union.

- The current proposal is open for comments at the WTO until June 15th. A final publication is expected no earlier than July 2020.

- Once a final decision is published, European users will have three months for use of available stocks, with a maximum grace period of six months.

Alinne B. Oliveira | Trade Policy Specialist, April 21st

FRUIT ROT FUNGICIDE EFFICACY

	Fungicide	Trade Names	Comments
High efficacy	Chlorothalonil	Bravo, Echo, Equus, etc.	Check with handler for market restrictions.
	Mancozeb	Dithane, Manzate, Penncozeb, etc.	May delay fruit color. Efficacy comparable to chlorothalonil. Low risk of resistance. Should be used as a resistance management tool if using 'newer' fungicides (see resistance management section). Restricted by some handlers.
	Prothioconazole Fenbuconazole	Proline Indar	Moderate risk of resistance. No more than 2 applications recommended. For best results and resistance management, use during bloom and combine with azoxystrobin.
	Azoxystrobin	Abound, Satori	High risk of resistance. No more than 2 applications. For best results combine with prothioconazole or fenbuconazole.
	Polyoxin-D zinc salt	Oso and Ph-D	Moderate risk of resistance. Maximum of 3 Oso applications or 6 Ph-D applications. Limited research on efficacy of polyoxin-D fungicides in MA. For best results alternate or incorporate into a program with other fungicides for fruit rot.
Low efficacy	Ferbam, Coppers, SDHI, plant extracts	Champ, Kocide, Kenja, Regalia, etc.	Limited research on efficacy of Kenja and Regalia in MA. These products were not effective against rot in 2016 trials. It is possible that better results could be obtained if alternated with other fungicide products with higher efficacy ratings.

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